PII: S0045-7906(98)00030-5

LIST OF CONTENTS

NUMBERS 1–2

Special Issue: Implementing Intelligence on Silicon Integrated Circuits— Part II: New Architectures and Algorithms

T. Shibata	1	Editorial
M. Iwata, H. Terada, Y. Xu, T. Takine and **K. Murakami**	3	Flow-Thru Processing concept and its application to soft-computing
K. Tamaru, K. Kobayashi and **H. Onodera**	17	Memory based architecture and its implementation scheme named bit-parallel block-parallel functional memory type parallel processor BPBP FMPP
K. Ike, K. Hirose and **H. Yasuura**	33	A module generator of 2-level neuron MOS circuits
T. Irita, T. Tsujita, M. Fujishima and **K. Hoh**	43	A simple chaos-generator for neuron element utilizing capacitance–*npn*-transistor pair
H. Yonezu, K. Tsuji, D. Sudo and **J.-K. Shin**	63	Self-organizing network for feature-map formation: analog integrated circuit robust to device and circuit mismatch
T. M. McGinnity, B. Roche, L. P. Maguire and **L. J. McDaid**	75	Novel architecture and synapse design for hardware implementations of neural networks
S. Guo and **L. Peters**	89	A high-speed fuzzy co-processor implemented in analogue/digital technique
L. J. McDaid, T. M. McGinnity and **L. P. Maguire**	99	BiCMOS implementation of a fuzzy system
I. del Campo, R. Callao and **J. Tarela**	113	Automatic implementation of different inference architectures for fuzzy control on PLDs
	I	Calls for Papers

NUMBERS 3–4

J. T. Baker, R. Dymale, R. A. Carreras and **S. Restaino**	123	Design and implementation of a low-cost starlight optical tracker system with 500 Hz active tip/tilt control
R. Colbaugh and **K. Glass**	135	Decentralized adaptive control of nonholonomic mechanical systems
G. Alia and **E. Martinelli**	167	Optimal VLSI complexity design for high speed pipeline FFT using RNS
H. S. Lim and **S. H. Cheraghi**	183	An optimization approach to shape matching and recognition

R. K. Gaede, F. Golos, M. D. McMahan and **J. H. Kulick** 201 Evaluation and performance analysis of the *process* cache: a partitioned multi-process secondary cache

E. Macii and **M. Poncino** 223 Automatic synthesis of easily scalable bus arbiters with dynamic priority assignment strategies

A. Masmoudi 229 Computer based investigation of the load influence on DFSM drive stability

İ. Eminoğlu and **İ. H. Atlaş** 245 The effects of the number of rules on the output of a fuzzy logic controller employed to a PM d.c. motor

N. A. S. Alwan and **B. A. R. Al-Hashemy** 263 Systolic design of frequency-domain block LMS adaptive digital filters

Computer Software Survey
G. K. Saha 277 Virtual *N*-versions programming for fault tolerant computing

I Calls for Papers

NUMBER 5

A. K. Cherri and **M. K. Habib** 279 Recoding algorithms for the modified signed-digit numbers for parallel digital computing

S. Bingulac and **N. F. Al-Muthairi** 295 On the equivalence between MFD models and pseudo-observable forms of MIMO systems

L. Goel 315 Power system reliability cost/benefit assessment and application in perspective

A. Z. Khan 325 Student training in the undergraduate curriculum of power system transient stability

A. K. Sahani and **S. K. Nagar** 335 Design of digital controllers for multivariable systems via time-moments matching

Yoon-Hwa Choi and **Yu-Seok Kim** 349 A fault-tolerant hierarchical diagnostic network for massively parallel processing systems

S. Chatterjee, R. B. Misra and **S. S. Alam** 363 A generalised shock model for software reliability

Computer Software Survey
G. K. Saha 369 Fault tolerant computing: a self-detection and recovery technique

NUMBER 6

K. Natarajan 371 On efficient variable voltage linear power supplies

K. Y. Wu, P. K. H. Ng, X. D. Jia, R. M. M. Chen and **A. M. Layfield** 385 A parallel direct method circuit simulator based on sparse matrix partitioning

K. Hamidian and **J. Payne** 405 Frequency reuse applied to CDMA channels in a cellular system

P. K. Saha, M. Shoib and **J. Kamruzzaman** 423 Development of a neural network based integrated control system of 120 ton/h capacity boiler

A. A. Ismaeel, R. Mathew and **R. Bhatnagar** 441 Scheduling and variable binding for improved testability in high level synthesis

463 List of Referees

I Volume Contents, Author and Keyword Indexes for Volume 24 (1998)